

Notice of Allowability

Application No.

10/651,279

Examiner

Luis F. Garcia

Applicant(s)

HARRES, DANIEL N.

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 6, 2006.
2. ☒ The allowed claim(s) is/are 3-16 and 19-37 renumbered 1-33 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

Allowable Subject Matter

1. Claims 3-16 and 19-37 are allowed.
2. The following is an examiner's statement of reasons for allowance:

As to Independent claim 3, the prior art references of Gopalakrishnan (US 5,699,179), Farina (US 5,515,199), Kimmitt et al (US 2003/0175037), Miyata et al (US 2003/0210915), Betti et al (US 5,416,628), Ross (US 3,956,626), Nazarathy et al (US 5,161,044) and Lange (US 3,579,145) does not fairly teach or suggest:

...a feed forward photonic modulation circuit adapted to receive the data input electrical signal and the system optical signal and output a final modulated optical signal substantially free from residual error, the feed forward photonic modulation circuit comprising:

...a second portion adapted to receive the data input electrical signal, the system optical signal and the second segment of the first modulated optical signal, generate a second modulated optical signal having a second wavelength, and combine the second segment of the first modulated optical signal with the second modulated optical signal to generate a summed optical signal.

As to independent claim 20, the prior art references of Gopalakrishnan (US 5,699,179), Farina (US 5,515,199), Kimmitt et al (US 2003/0175037), Miyata et al (US 2003/0210915), Betti et al (US 5,416,628), Ross (US 3,956,626), Nazarathy et al (US 5,161,044) and Lange (US 3,579,145) does not fairly teach or suggest:

...receiving the data input electrical signal, the system optical signal and the second segment of the first modulated optical signal at a second portion of the feed forward photonic modulation circuit and generating a second modulated optical signal having a second wavelength;

combining the second segment of the first modulated optical signal with the second modulated optical signal to generate a summed optical signal and using the summed optical signal to generate a corrective modulated signal; and

using the corrective modulated signal to correct for non-linearity in the first segment of the first modulated optical signal, thereby generating a final modulated optical signal having a increased degree of linearity with respect to the data input electrical signal.

As to Independent claim 26, the prior art references of Gopalakrishnan (US 5,699,179), Farina (US 5,515,199), Kimmitt et al (US 2003/0175037), Miyata et al (US 2003/0210915), Betti et al (US 5,416,628), Ross (US 3,956,626), Nazarathy et al (US 5,161,044) and Lange (US 3,579,145) does not fairly teach or suggest:

...a second portion adapted to receive the data input electrical signal, the system optical signal and the second segment of the first modulated optical signal, generate a second modulated optical signal having a second wavelength, and combine the second segment of the first modulated optical signal with the second modulated optical signal to generate a summed optical signal;

a third portion adapted to receive the summed optical signal and the system optical signal, and generate a corrective modulated optical signal having a third wavelength; and

a fourth portion adapted to combine the first segment of the first modulated optical signal with the corrective modulated optical signal to generate a final modulated optical signal that has a high degree of linearity with respect to the data input electrical signal.

3. **Claim 19 is renumbered claim 20 AND old claim 20 is renumbered claim 19; Claim dependency is renumbered accordingly.**

4. **Claims 3-16 and 19-37 are renumbered respectively as claims 1-33, and the claim dependency is renumbered accordingly.**

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luis F. Garcia whose telephone number is (571)272-7975. The examiner can normally be reached on 8-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken N. Vanderpuye can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LG


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